

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Canceled)

2. (Currently Amended) ~~A method as set forth in claim 1~~ A method of generating X-ray or EUV radiation, comprising the steps of: (i) urging a substance through an outlet to generate a jet in a direction from the outlet, (ii) directing at least one energy beam onto the jet, the energy beam interacting with the jet to generate the X-ray or EUV radiation, and (iii) controlling the temperature of the outlet by heating the outlet, such that the stability of the jet is improved, wherein the step of controlling the temperature comprises effecting ohmic heating of the outlet.

3. (Currently Amended) ~~A method as set forth in claim 1~~ A method of generating X-ray or EUV radiation, comprising the steps of: (i) urging a substance through an outlet to generate a jet in a direction from the outlet, (ii) directing at least one energy beam onto the jet, the energy beam interacting with the jet to generate the X-ray or EUV radiation, and (iii) controlling the temperature of the outlet by heating the outlet, such that the

stability of the jet is improved, wherein the step of controlling the temperature comprises directing radiation energy onto the outlet.

4. (Currently amended) A method as set forth in ~~claim 1~~ claim 2 or 3, wherein the jet leaves the outlet in a condensed state.

5. (Currently amended) A method as set forth in ~~claim 1~~ claim 2 or 3, wherein the substance comprises a gas which is cooled to a liquid state before being urged through the outlet.

6. (Previously presented) A method as set forth in claim 5, wherein the gas is an essentially inert gas.

7. (Currently amended) A method as set forth in ~~claim 1~~ claim 2 or 3, wherein the energy beam is directed onto a spatially continuous portion of the jet.

8. (Currently amended) A method as set forth in ~~claim 1~~ claim 2 or 3, wherein the energy beam is directed onto at least one droplet of the jet.

9. (Currently amended) A method as set forth in ~~claim 1~~ claim 2 or 3, wherein the energy beam is directed onto a spray of droplets or clusters formed from the jet.

10. (Previously presented) A method as set forth in claim 4, wherein the jet is cooled by evaporation to a frozen state, and the energy beam is directed onto a frozen portion of the jet.

11. (Currently Amended) A method as set forth in ~~claim 1~~ claim 2 or 3, wherein the energy beam comprises pulsed laser radiation which interacts with the jet to form a plasma emitting the X-ray or EUV radiation.

12. (Currently Amended) A method as set forth in ~~claim 1~~ claim 2 or 3, wherein the energy beam is focused on the jet to essentially match a transverse dimension of the energy beam to a transverse dimension of the jet.

13. (Previously presented) A method as set forth in claim 7, wherein the energy beam is focused to essentially coincide with the spatially continuous portion over a length thereof.

14. (Canceled)

15. (Currently Amended) ~~An apparatus as set forth in claim 14 An apparatus for generating X-ray or EUV radiation, comprising an energy source arranged to emit at least one energy beam; a target generator arranged to urge a substance through an outlet to~~

generate a target in the form of a jet in a direction from the outlet; and a beam controller operative to direct the energy beam emitted by the energy source onto the target jet generated by the target generator, the X-ray or EUV radiation being generated by the energy beam interacting with the jet, the target generator further comprising a temperature controller operative to control the temperature of the outlet by heating the outlet, such that the stability of the target jet is improved, wherein the temperature controller comprises a resistive element arranged in association with the outlet, and a power supply connected to the resistive element to heat the outlet by ohmic heating.

16. (Currently Amended) An apparatus as set forth in claim 14 An apparatus for generating X-ray or EUV radiation, comprising an energy source arranged to emit at least one energy beam; a target generator arranged to urge a substance through an outlet to generate a target in the form of a jet in a direction from the outlet; and a beam controller operative to direct the energy beam emitted by the energy source onto the target jet generated by the target generator, the X-ray or EUV radiation being generated by the energy beam interacting with the jet, the target generator further comprising a temperature controller operative to control the temperature of the outlet by heating the outlet, such that the stability of the target jet is improved, wherein the temperature controller comprises a radiation heater directing radiation energy onto the outlet.

17. (Previously presented) An apparatus as set forth in claim 16, wherein the outlet comprises means providing for at least one of enhanced and confined absorption of the radiation energy.

18. (Currently amended) An apparatus as set forth in ~~claim 14~~ claim 15 or 16, wherein the target generator is adapted to generate the jet such that it is in a condensed state when leaving the outlet.

19. (Currently Amended) An apparatus as set forth in ~~claim 14~~ claim 15 or 16, wherein the substance comprises a gas, the target generator being adapted to cool the gas to a liquid state before urging it through the outlet.

20. (Previously presented) An apparatus as set forth in claim 19, wherein the gas is an essentially inert gas.

21. (Currently amended) An apparatus as set forth in ~~claim 14~~ claim 15 or 16, wherein the target generator is controllable to provide a spatially continuous portion, at least one droplet, or a spray of droplets or clusters for the energy beam to interact with.

22. (Currently amended) An apparatus as set forth in ~~claim 14~~ claim 15 or 16, wherein the outlet is arranged to generate the jet in a chamber, and wherein a conditioning

means is arranged to control the atmosphere in the chamber such that the jet is cooled by evaporation to a frozen state on entry into the chamber.

23. (Currently Amended) An apparatus as set forth in ~~claim 14~~ claim 15 or 16, wherein the energy source comprises a laser emitting at least one beam of pulsed laser radiation, the beam, when directed onto the jet, interacting therewith to form a plasma emitting the X-ray or EUV radiation.

24. (Currently Amended) An apparatus as set forth in ~~claim 14~~ claim 15 or 16, wherein the beam controller is adapted to focus the energy beam on the jet to essentially match a transverse dimension of the energy beam to a transverse dimension of the jet.

25. (Previously presented) An apparatus as set forth in claim 21, wherein the beam controller is adapted to focus the energy beam to essentially coincide with the spatially continuous portion over a length thereof.

26. (Currently Amended) A method as set forth in ~~claim 1~~ claim 2 or 3, wherein X-ray radiation is generated, further comprising the step of performing X-ray microscopy with the radiation.

27. (Currently amended) A method as set forth in ~~claim 1~~ claim 2 or 3, further comprising the step of performing proximity lithography with the generated radiation.

28. (Currently Amended) A method as set forth in ~~claim 1~~ claim 2 or 3, wherein EUV radiation is generated, further comprising the step of performing EUV projection lithography with the radiation.

29. (Currently amended) A method as set forth in ~~claim 1~~ claim 2 or 3, further comprising the step of performing photoelectron spectroscopy with the generated radiation.

30. (Currently Amended) A method as set forth in ~~claim 1~~ claim 2 or 3, wherein X-ray radiation is generated, further comprising the step of performing X-ray fluorescence with the radiation.

31. (Currently Amended) A method as set forth in ~~claim 1~~ claim 2 or 3, wherein X-ray radiation is generated, further comprising the step of performing X-ray diffraction with the radiation.

32. (Currently amended) A method as set forth in ~~claim 1~~ claim 2 or 3, further comprising the step of performing a medical diagnosis with the generated radiation.

33. (Previously presented) A method as set forth in claim 2, wherein the step of controlling the temperature comprises effecting ohmic heating of the outlet at an orifice thereof.

34. (Previously presented) A method as set forth in claim 6, wherein the gas is a noble gas.

35. (Previously presented) A method as set forth in claim 20, wherein the gas is a noble gas.